

## **REMARKS**

### **Status of Claims**

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-10, 12, 13, 15, 16, 18, 19, 24, 25, 27-29, 31-33, 35-38 and 40-44 are currently pending;
- Claims 11, 20 and 21 are canceled herein;
- No claims are withdrawn herein;
- Claims 1, 12, 18, 19, 24, 27-29, 31, 33, 35, 36, 38, 40, 42, and 43 are amended herein;
- No new claims are added herein; and
- Claims 1, 18, 29, 33, 36, 38 and 40 are independent.

Support for the amendments to the claims is found in the specification at least at paragraphs 0031, 0038, 0039, 0043-0045 and 0048-0049 of Applicant's published application, US2005/0097606.

### **Claims 36-37 Recite Statutory Subject Matter Under § 101**

Claims 36-37 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

Furthermore, for the sole purpose of expediting prosecution and without commenting on the propriety of the Office's rejections, Applicant herein amends claim 36 as shown above. As discussed during the interview, Applicant respectfully submits that these amendments render the § 101 rejection moot.

## **Obviousness Rejections**

### **Cited Documents**

The following documents have been applied to reject one or more claims of the Application:

- **Kikinis:** Kikinis, U.S. Patent No. 7,213,256
- **Ellis:** Ellis et al., U.S. Patent Application Publication No. 2008/0115169
- **O'Connor:** O'Connor et al., U.S. Patent Application Publication No. 2003/0165324

### **Rejection of Claims**

Claims 1-13, 15-16, 18-21, 24, 27-29, 31-33, 35-38 and 40-44 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Kikinis in view of Ellis and/or O'Connor. Applicant respectfully traverses these rejections, and requests reconsideration and withdrawal of the rejections for the following reasons.

### **Independent Claim 1**

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 1 (with emphasis added):

***...displaying a currently displayed television program on a display;***

***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes for the currently displayed television program overlaid on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program, wherein each attribute of the set of viewer-selectable attributes corresponds to a combinable navigation context to generate a navigable sequence of television programs;***

selecting at least two attributes from the set of viewer-selectable attributes using one or more of three navigation keys comprising a previous key, a next key and a select key;

logically combining the navigation contexts which correspond to the selected at least two attributes using Boolean operators;

querying a database of television programming metadata for television program identifiers associated with the combined navigation contexts;

generating a sequence of television programs associated with the identifiers for navigation wherein the sequence comprises a corresponding navigational axis, the sequence of television programs including the current television program and at least one other television program that shares one or more of the selected attributes with the currently displayed television program; and

***navigating the sequence of television programs, wherein the navigating comprises using the next key or previous key to change from displaying the currently displayed television program in the sequence to displaying another television program in the sequence, wherein the next key or previous key is used to cycle through the sequence of television programs without having to access a menu listing the television programs in the sequence for navigating to display of a next television program in the sequence.***

Kikinis, describes an EPG display with expanded search function in which a viewer marks a program in the EPG display in preparation for an expanded search function either through either through a viewer action on the display as illustrated (e.g. clicking the desired show with an input device and displaying the clicked show as highlighted in contrast to other shows) or through a viewer action on a remote control device (col. 3, lines 23-31). In one embodiment of Kikinis, a command button or other graphical visual icon is provided for affirmatively entering a command on the EPG display to initiate the expanded search function 305 based on the marked selection of the show (col. 3, lines 32-35). Accordingly, Kikinis does not teach or suggest ***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes for the currently displayed television program overlaid on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program***, as recited in Applicant's amended claim 1.

Additionally, at page 6, lines 4-7, the Office Action, with respect to the rejection of claim 8, the Office Action asserts that Kikinis discloses "wherein a link is selectable while the television program content is playing", citing col. 4, lines 21-24 of Kikinis. However, Applicant respectfully notes that the cited portion of Kikinis reads as follows:

It should be understood that the same technique may also be used with movies or any other program for which the show title and other descriptive information are available on the EPG program data. For example, if a Steve Martin festival is playing, a viewer could search for other shows in which Steve Martin appears instead of only the specific show that forms the basis of the search reference (col. 4, lines 18-24) (emphasis added).

Thus, this portion of Kikinis does not teach or suggest ***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes for the currently displayed television program overlaid on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program***, as recited in Applicant's amended claim 1.

Further, the combination of Kikinis with Ellis and/or O'Connor also fails to teach or suggest the above-recited elements. For example, Ellis merely describes a program guide client that displays a criteria screen 161 to provide a user with an opportunity to set reminders according to Boolean type expressions (par. 0099). O'Connor is similarly deficient. Thus, the combination of Kikinis with Ellis and O'Connor fails to teach or suggest ***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes for the currently displayed television program overlaid on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program***, as recited in Applicant's amended claim 1.

In addition, the combination of Kikinis with Ellis and/or O'Connor also does not teach or suggest ***navigating the sequence of television programs, wherein the navigating comprises using the next key or previous key to change from displaying the currently displayed television program in the sequence to***

***displaying another television program in the sequence, wherein the next key or previous key is used to cycle through the sequence of television programs without having to access a menu listing the television programs in the sequence for navigating to display of a next television program in the sequence,*** as also recited in Applicant's amended claim 1. Instead, Kikinis merely describes that the viewer can select from the results which of the shows to watch, or may repeat the expanded search function using the selected result as the specific show that forms the basis of the search reference (col. 4, lines 13-17). Ellis and O'Connor also fail to teach or suggest this clause of Applicant's claim 1.

In view of the foregoing, Applicant respectfully submits that claim 1 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim 1.

#### **Independent Claims 18**

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 18 (with emphasis added):

***...displaying a currently displayed television program on a display;***

***activating a navigation system during display of the currently displayed television program, wherein the navigation system automatically determines and displays a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program;***

selecting one or more attribute values from the displayed set of viewer-selectable attributes to define a query for television programming metadata, wherein the navigation system uses the selected one or more attribute values corresponding to the currently displayed television program in the query to produce a list of television program identifiers identified by the navigation system as corresponding to the selected one or more attribute values;

arranging the television programming metadata into a data structure wherein attribute values are associated with program identifiers;

providing a user interface, wherein a navigation control is used to launch the query by selecting the one or more attribute values from the displayed set of viewer-selectable attributes corresponding to the currently displayed television program;

using the navigation control to access a different television program than the currently-displayed television program, the different television program accessed corresponding to the list, wherein the television program comprises a television program selected from a group consisting of on-demand television programs and currently broadcast television programs;

displaying the different television program in response to the navigation control accessing the different television program; and

***during display of the different television program, activating the navigation system, wherein the navigation system automatically determines and displays a different set of viewer-selectable attributes that are descriptive of the different television program, wherein the navigation system overlays the different set of viewer-selectable attributes on the display of the different television program, wherein one or more of the different attributes is selected to create a new list of television program identifiers corresponding to the selected one or more different attributes.***

As discussed above with respect to claim 1, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest ***activating a navigation system during display of the currently displayed television program, wherein the navigation***

**system automatically determines and displays a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program**, as recited in Applicant's amended claim 18.

In addition, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest, **during display of the different television program, activating the navigation system, wherein the navigation system automatically determines and displays a different set of viewer-selectable attributes that are descriptive of the different television program, wherein the navigation system overlays the different set of viewer-selectable attributes on the display of the different television program, wherein one or more of the different attributes is selected to create a new list of television program identifiers corresponding to the selected one or more different attributes**, as also recited in Applicant's amended claim 18. Instead, as discussed above, Kikinis merely describes that the viewer can select from the results which of the shows to watch, or may repeat the expanded search function using the selected result as the specific show that forms the basis of the search reference (col. 4, lines 13-17). Ellis and O'Connor also fail to teach or suggest this aspect.

In view of the foregoing, Applicant respectfully submits that claim 18 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim 18.



Independent Claim 29

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 29 (with emphasis added):

...a server for storing and accessing digital television programming content;

a navigation control for navigating any one of multiple navigational axes to change from displaying of a currently displayed television program to displaying a television program provided by the server, and for selecting links to launch predefined queries, wherein each predefined query queries a database based on television program attributes selected by a viewer and returns a navigation axis comprising a list of program identifiers of television programs corresponding to a value for the television program attributes selected;

a means for storing television program metadata in a database;

a means for arranging the program metadata in a relational schema;

a means for defining and storing the pre-defined queries;

a means for embedding links to the pre-defined queries in logically associated metadata for a currently displayed television program; and

a means for logically combining multiple predefined queries using Boolean operators,

***wherein the navigation system is configured to be activated during the display of the currently displayed television program, wherein the navigation system automatically determines and displays a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program;***

***wherein the navigation system uses one or more selected attribute values selected from the set of viewer-selectable attributes corresponding to the currently displayed television***

***program to define one of the predefined queries to produce the list of television program identifiers;***

***wherein the navigation controls provide for navigation from the currently displayed television program to a different television program corresponding to one of the program identifiers in the list by activation of a single key.***

As discussed above with respect to claim 1, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest a ***navigation system configured to be activated during the display of the currently displayed television program, wherein the navigation system automatically determines and displays a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program, wherein the navigation system uses one or more selected attribute values selected from the set of viewer-selectable attributes corresponding to the currently displayed television program to define one of the predefined queries to produce the list of television program identifiers***, as recited in Applicant's amended claim 29.

In addition, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest that ***the navigation controls provide for navigation from the currently displayed television program to a different television program corresponding to one of the program identifiers in the list by activation of a single key***, as also recited in Applicant's amended claim 29. Instead, as discussed above, Kikinis merely describes that the viewer can select from the results which of the shows to watch, or

may repeat the expanded search function using the selected result as the specific show that forms the basis of the search reference (col. 4, lines 13-17). Ellis and O'Connor also fail to teach or suggest this aspect.

In view of the foregoing, Applicant respectfully submits that claim 29 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim 29.

Independent Claim 33

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 33 (with emphasis added):

...a database for television program metadata;

a query engine to find program identifiers in the database corresponding to predefined queries, wherein a predefined query returns a navigational axis from the database, wherein a navigational axis is a list of program identifiers of television programs;

***a user interface to associate launch of one or more of the predefined queries with selection of attributes descriptive of a currently displayed television program, and to receive the attributes which are selected by a viewer, wherein activation of the user interface during display of a currently displayed television program results in the user interface presenting a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the user interface overlays the set of viewer-selectable attributes on the currently displayed television program for a viewer to select one or more attribute values from the displayed set of viewer-selectable attributes to define a query;***

an axis cache to store the list of program identifiers returned by one or more predefined queries; and

a navigation controller associated with the user interface to select the attribute values from the displayed set of attribute values corresponding to the currently displayed television program for launching the one or more predefined queries, to navigate a navigational axis that is the list of program identifiers of television programs determined to correspond to the one or more predefined queries, and to display television programs corresponding to the program identifiers on the list.

For the reasons discussed above with respect to claim 1, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest ***a user interface to associate launch of one or more of the predefined queries with selection of attributes descriptive of a currently displayed television program, and to receive the attributes which are selected by a viewer, wherein activation of the user interface during display of a currently displayed television program results in the user interface presenting a set of viewer-selectable attributes that are descriptive of different aspects of the currently displayed television program, wherein the user interface overlays the set of viewer-selectable attributes on the currently displayed television program for a viewer to select one or more attribute values from the displayed set of viewer-selectable attributes to define a query***, as recited in Applicant's amended claim 33.

In view of the foregoing, Applicant respectfully submits that claim 33 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim 33.

Independent Claims 36 and 38

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 36 (with emphasis added):

...instructions for arranging a database of television programming metadata into indices facilitating predefined queries;

wherein one or more links contextually associated with one or more attributes of a currently displayed television program call the predefined queries, wherein the one or more attributes are selected by a viewer from among a set of attributes and logically combined using Boolean operators, and wherein each attribute of the set corresponds to a combinable navigation context which can be used for generating a navigable sequence of television programs along a navigational axis, **wherein the set of attributes corresponding to the currently displayed television program are automatically determined and displayed as viewer-selectable attributes when a user interface is activated during display of the currently displayed television program;**

wherein the predefined queries return a list of identifiers from the database corresponding with one or more of the attributes,

wherein each list forms a navigational axis,

wherein each identifier in a list corresponds to either an on-demand or currently broadcast television program,

**wherein the television programs on the list are displayed as accessed by a television channel navigation means for navigating one or more navigational axes, wherein the television channel navigation means comprises a next key, a previous key and a select key, wherein the next key or previous key is used to cycle through the television programs corresponding to the list without having to access a menu listing the television programs in the list for navigating to a next television program in the sequence.**

For the reasons discussed above with respect to claim 1, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest that ***the set of attributes corresponding to the currently displayed television program are automatically determined and displayed as viewer-selectable attributes when a user interface is activated during display of the currently displayed television program***, as recited in Applicant's amended claim 36.

In addition, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest that ***the television programs on the list are displayed as accessed by a television channel navigation means for navigating one or more navigational axes, wherein the television channel navigation means comprises a next key, a previous key and a select key, wherein the next key or previous key is used to cycle through the television programs corresponding to the list without having to access a menu listing the television programs in the list for navigating to a next television program in the sequence***, as also recited in Applicant's amended claim 36. Instead, as discussed above, Kikinis merely describes that the viewer can select from the results which of the shows to watch, or may repeat the expanded search function using the selected result as the specific show that forms the basis of the search reference (col. 4, lines 13-17). Ellis and O'Connor also fail to teach or suggest this aspect.

In view of the foregoing, Applicant respectfully submits that claim 36 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim

36. Independent claim 38 is directed to similar subject matter and is allowable under a similar rationale.

Independent Claim 40

Applicant submits that the combination of Kikinis with Ellis and O'Connor does not teach or suggest at least the following elements, as recited in independent claim 40 (with emphasis added):

***...displaying a currently displayed television program on a television;***

***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes corresponding to the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program;***

selecting an attribute from the set of view selectable attributes using one or more of three navigation keys comprising a previous key, a next key and a select key;

querying a database of television program metadata corresponding to television programs based on the selected attribute;

receiving results from the querying wherein the results comprise television program identifiers and wherein each of the television program identifiers identifies a television program having the selected attribute in common with the currently displayed television program;

generating a navigational axis for navigating the television programs that correspond to the television program identifiers wherein the navigational axis comprises an axis independent of a future time;

***receiving an instruction to change a channel on the television by activation of a single key;***

***responsive to receipt of the instruction, navigating the navigational axis from displaying the currently displayed television program to display a different television program located on the navigational axis; and***

***displaying the different television program on the television.***

For the reasons discussed above with respect to claim 1, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest ***activating a navigation system during display of the currently displayed television program, wherein the navigation system determines and displays a set of viewer-selectable attributes corresponding to the currently displayed television program, wherein the navigation system overlays the set of viewer-selectable attributes on the currently displayed television program, the set of attributes comprising attributes which are each descriptive of a different aspect of the currently displayed television program***, as recited in Applicant's amended claim 40.

In addition, the combination of Kikinis with Ellis and/or O'Connor does not teach or suggest ***receiving an instruction to change a channel on the television by activation of a single key; responsive to receipt of the instruction, navigating the navigational axis from displaying the currently displayed television program to display a different television program located on the navigational axis; and displaying the different television program on the television***, as also recited in Applicant's amended claim 40. Instead, as discussed above, Kikinis merely describes that the viewer can select from the results which of the shows to watch, or may repeat the expanded search function using the selected result as the specific show that forms



the basis of the search reference (col. 4, lines 13-17). Ellis and O'Connor also fail to teach or suggest this aspect.

In view of the foregoing, Applicant respectfully submits that claim 40 is allowable over Kikinis, Ellis and O'Connor and/or the other art of record, and is in condition for allowance. Applicant respectfully asks the Examiner to withdraw the rejection of claim 40.

### **Dependent Claims**

In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

## **Conclusion**

Applicant submits that all pending claims are in condition for allowance.

Applicant respectfully requests reconsideration and prompt issuance of the application.

If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned representative for the Applicant before issuing a subsequent Action.

Respectfully Submitted,

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